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ABSTRACT

Beginning in 1981, the Bay Shore (New York) School District initiated comprehensive changes in its instructional program. The process, which involved long range planning for 1982-1987 and 1987-1992, used focus groups, survey data, community input, and school-based feedback. Several of the overall goals of these plans are concerned with assuring equal education opportunities for all students, regardless of socioeconomic status, race, ethnicity, gender, or handicapping condition. This paper summarizes the school district's efforts to bring about positive changes and increase student achievement, and presents an overview of data and results that indicate substantial gains by at-risk students. Bay Shore's long-range planning, accomplished through a participative-consultative leadership model, elicited contributions from a broad cross section of the educational community. Major action objectives of the two plans focused on instructional development, program evaluation, and staff development. Each of these three foci has facilitated closing the achievement gap between White majority students and Hispanic and Black minority students. The paper includes discussion of the implementation and evaluation of a full-day kindergarten program, effects on minority group students and students from lower income backgrounds, and referrals to special education and remedial mathematics and reading. Students' achievement in mathematics as measured by New York State tests rose from 87% of students exceeding the State Reference Point (SRP) to 100% of students exceeding it, while reading achievement rose from 79% to 89% of students scoring above the SRP. (AF)

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BAY SHORE UNION FREE SCHOOL DISTRICT
Bay Shore, New York

Presentation Paper

CLOSING THE ACHIEVEMENT GAP:

HOW COMPREHENSIVE CHANGES IN PROGRAM AND CURRICULUM DESIGN

CAN IMPROVE ACHIEVEMENT FOR ALL

AND

NARROW THE GAP BETWEEN

MINORITY STUDENT ACHIEVEMENT AND CAUCASIAN STUDENT ACHIEVEMENT

by

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INTRODUCTION

Beginning in 1981, the Bay Shore School District initiated comprehensive changes in its instructional program. Elementary curricula were revised; new materials and instructional support were provided; a full-day kindergarten program was initiated and a major emphasis was placed on staff development. After five years of implementation, achievement soared. Students' achievement in mathematics as measured by New York State tests rose from 87% of students exceeding the State Reference Point to 100%, while reading achievement rose from 79% to 89% of the students scoring above the State Reference Point. Scores on standardized tests using the IOWA Tests of Basic Skills demonstrated similar results. Gains for minority and disadvantaged children surpassed that of Caucasian children and fewer students needed remedial assistance as per Chapter I guidelines. A major study focusing upon the implementation of a full-day kindergarten program yielded statistically significant results as well as large effect sizes which document the above.

The text which follows summarizes the efforts which were initiated and the processes which were developed to bring about positive changes and to increase student achievement. In addition, the article presents an overview of the data and results which reveal substantial gains attained by at risk students.

MAKING A DIFFERENCE

Long Range Planning

The Bay Shore School District is in the third year of implementation of its second Long Range Plan. Beginning in 1982, the District initiated a process of long range planning which involved focus groups, survey data, community input and school based feedback. Several of the overall goals of both Long Range Plans assure equal educational opportunities for all students, regardless of socioeconomic status, race, ethnicity, gender, or handicapping condition.

Ensuring opportunities for all students becomes an especially important goal for a district such as Bay Shore with its diverse cross-section of socioeconomic and racial groups in the community. The District reflects a microcosm of the United States with its very affluent population as well as its low-income families; and with an Anglo population of 68%, black population of 18%, and Hispanic population of 14%. Thus, announcing publicly that the District will educate all youngsters and enable all students to succeed reinforces the commitment to all students which the Bay Shore School District has undertaken. This commitment and this forthrightness has led in part to closing the achievement gap between minority students and majority Anglo youngsters.

Bay Shore's model of long range planning, accomplished through a participative consultative leadership model, includes representatives from the community, teachers, administrators, secretaries, counselors, psychologists, parents,

Board of Education members, as well as the Superintendent. Thus an excellent cross-section of the educational community has contributed to the academic success of all students.

Major action objectives of the two Long Range Plans (1982-1987; 1987-1992) focus upon instructional development, program evaluation, and staff development. Each of these three focuses has facilitated closing the achievement gap between white majority students and the Hispanic and black minority students.

Within these broad goals and objectives, academic standards and expectations have provided two powerful objectives to mobilize the District toward improvement. Through specific target dates and clearly defined measures, the Bay Shore School District has improved the overall elementary school programs and the academic success of at risk students.

Goals and Objectives

Within the context of long range planning, the goals and objectives which have impacted favorably upon students' achievement the most directly include the following: outcome-based instruction, use of standardized tests for instructional purposes, academic standards, expectations, grouping for instruction, staff development, and program evaluation. Pertaining to the elementary schools, an action objective which has resulted in significant gains for minority students and Caucasian youngsters states that:

> By September 1987, each building principal in conjunction with building-level faculty representation, shall submit a plan aimed toward improvement of PEP Test scores in math, reading and writing. Such plans shall be developed by each elementary and Middle School principal regardless of whether or not PEP Tests are administered in a particular building. Further, such plans shall describe long-term (by September 1992) objectives describing specific achievement gains which will be consistent for all students and shall be so measured across the SES, race and sex of students. Every year an annual plan describing the yearly objectives and activities designed to realize the long-term objectives shall be submitted to the Superintendent or his/her designee by June 30 for the forthcoming school year.

Similar objectives pertaining to student achievement have been implemented in the Bay Shore Middle School and High School: objectives specific to secondary schools' measures of success. The Bay Shore School District has been able to improve the achievement of its youngsters, especially those students placed at risk by the society and by the educational system through its clearly defined goals and objectives, its high expectations, and its long-rang planning.

The Bay Shore School District even concerns itself with students' attainments after graduation. For example, the following objective appears in the District's Long Range Plan: "Beginning with the class of 1992, it is the goal of the District to have at least 80 percent of its graduating class enrolled in programs of post-secondary education." Additional objectives focus upon ensuring that graduating students receive college credit for their high school work. Thus, closing the achievement gap has been an outgrowth of setting clear goals as well as high goals and objectives for <u>all</u> students.

Curriculum Development

During the 1980's teams of teachers and administrators reviewed the curriculum which had existed in the District. As part of an overall assessment and program evaluation plan, it was determined that new curricula needed to be developed in all areas of the elementary school program. Since 1983, the elementary program includes newly written and implemented curricula in the following areas: mathematics, science, writing, reading, social studies, physical education, art, music, child protection, and library media.

With each new curriculum, Board of Education adoption provided the support for the implementation and the support for the resources necessary to ensure the success of the programs. At the core of the Board of Education's support stood the concern for students' success in the Bay Shore Schools. The solid curricula developed in the District and the strengths of the staff members who wrote each curriculum stand as two pillars upon which youngsters' academic achievement rests. Without the strong foundation of an excellent instructional program grounded in outstanding curricula, the results demonstrated by Bay Shore students could not have been attained.

Staff Development

With solid curriculum and instruction in place, a comprehensive plan of staff development for members of the Bay Shore School District provided the important vehicle to accomplish lofty goals. Two significant objectives embedded in the District's Long Range Plan appear below:

Action Objective #2: Staff Development

If the objectives in this long range plan are to be achieved, the District must provide a comprehensive plan of staff development for the various members of the District staff.

2.1 By September of 1988, every effort will be made to have all administrative and supervisory staff participate in staff development programs that focus on the following topics:

2.1.1 Techniques of Program Evaluation;
2.1.2 Understanding and Meeting the Needs of Minority Students;
2.1.3 Alternative Educational Strategies for Students Who Are Economically, Culturally, or Socially Disadvantaged.

2.2 By September 1989, every effort will be made to have all teachers participate in staff development programs that focus on the following topics:

2.2.1 understanding and meeting the needs of minority students;
2.2.2 alternative educational strategies for student who are economically, culturally, or socially disadvantaged.

Coupled with strategies to improve overall instruction, the above cited objectives have enabled the District's personnel to address the needs of the at risk population. Through an extensive staff development program which has received the esteemed recognition of AASA in 1986 and again in 1987, the Bay Shore School District improved academic achievement of its minority students and low socioeconomic population.

Full Day Kindergarten Program

In 1981 when the Board of Education adopted its first Long Range Plan, the Board emphasized that, "because we live in a time that imparts constant

changes, the District has a responsibility to attempt to anticipate the needs of the community." It further noted that societal changes reflecting more one-parent families, two-parent bread winners....may reflect new community needs." With that in mind, the Board made a commitment to conduct a feasibility study to determine the need for a full-day kindergarten program. The study was conducted by a committee comprised of members of the community, faculty, and administration.

In December 1983, the committee report was presented to the Board of Education with the recommendation that a full-day kindergarten program be implemented effective September 1984. Following the Board adoption of a full-day kindergarten program, a committee comprised of all of the kindergarten teachers, the primary principals, and the District coordinators was established to design the full-day kindergarten program.

The District administration provided overall guidelines to the committee with emphasis that it was the intent of the District that the newly established program would have an academic orientation reflected in the following position statement:

> **The benefits of the full-day kindergarten program should be seen in greater academic gains for all of our students and result in fewer students needing remedial assistance by the time they reach the end of third grade. In other words, the full-day kindergarten program should be academic in orientation with the greatest amount of the full-day program focusing on the language arts, mathematics, social studies and science.**

Full-Day Kindergarten Program:

Evaluation Plan

When the Board of Education approved the implementation of the full-day kindergarten program, it asked that the administration devise an evaluation plan to determine the effectiveness of the full-day program. It was noted that the evaluation plan should emphasize student achievement. An ambitious evaluation plan was established and implemented immediately following the implementation of the full-day program in September 1984.

The evaluation plan called for two major areas of study. The first area pertained to attitudinal surveys while the second pertained to the study of achievement. Results measured by achievement as well as attitudes indicated that the full-day kindergarten program combined with new curricula, staff development, clearly defined goals and objectives, and long-range planning indeed made a difference. The overall success of Bay Shore's approach to achieving results includes narrowing the achievement gap between minority and majority youngsters.

RESULTS

Effects on Minority Students

Typically students from minority backgrounds are more likely to begin with lower academic performance and gradually, but continually, fall further behind. As a result, minority students are overrepresented among students who are retained, referred to special education, and most significantly who drop

out of school. Previous research has suggested that early intervention (e.g. Head Start, preschool, kindergarten) and prolonged intervention are necessary to remediate these problems.

The results of programmatic changes made in the Bay Shore elementary schools -- including both the full-day kindergarten and the new reading and mathematics programs -- constituted the type of early and prolonged intervention previous research has described. Comparing the achievement of minority students who benefited from the entire programmatic change to those who did not experience the entire program determined the degree to which the Bay Shore Schools began to meet the needs of itsminority students. Generally, the results indicated that minority students who had participated in the programmatic innovations outperformed minorities who had not. These data suggested that the combination of full-day kindergarten plus the change to more systematic curricula in reading, mathematics and other disciplines was particularly effective with minority students.

Black Students

Overall black students exhibited higher achievement when they experienced the full-day kindergarten and the new reading and mathematics curricula. The Iowa Tests of Basic Skills showed consistently superior achievement in mathematics by blacks who experienced the full programmatic changes, ranging from 4 to 10 NCE's higher.

Similarly, black students who had been involved in the programmatic changes scored much higher on the Pupil Evaluation Program (PEP) Tests and a much

higher percentage of them exceeded the State Reference Point on the PEP reading test. In the cohort that had not experienced new curricula and full-day kindergarten a rather low 58.1% of the students passed the reading portion of the PEP, whereas in the cohort that did have the new programs that percentage jumped to 78.4% Clearly these results suggested that the programmatic changes made have been quite beneficial in improving academic performance of black students.

Hispanic Students

The achievement data for Hispanic students essentially reaffirmed everything previously stated with respect to black student achievement. Hispanic students exhibited significant and consistently large benefits from the programmatic changes that were made. On the Iowa Tests of Basic Skills (ITBS), Hispanics averaged 7 to 9 NCE's higher in both reading and mathematics. As was true for black students, Hispanic students also moved from achieving around the national average, to scoring significantly above the average by the end of the third grade. During grades one through three, Hispanic students exhibited a steady increase in their reading and mathematics achievement when they participated in the new programs. Similarly, Hispanics in the 1984 cohort also performed much higher on the PEP tests, with significant increases in the percentage of students who exceeded the State Reference Point. Particularly notable is the fact that all of the Hispanic students in the cohort that had participated in programmatic changes surpassed the State Reference Point for mathematics.

Closing the Achievement Gap

Finally, it was important to look at the results of the minority students as compared to their nonminority peers. Prior to the programmatic changes, minority students began school behind white students in achievement, and tended to stay behind or fall further behind. As stated previously, this is an all too common occurrence. However, after instituting the full-day kindergarten program and the changes in the reading and mathematics curricula, this scenario changed markedly. The averages on the ITBS showed that minorities were still behind initially (at the end of first grade), but that the magnitude of the deficit was not nearly as great as the previous year. Furthermore, by the end of third grade the Hispanic students had greatly narrowed the achievement gap with their white peers, to only 2 NCE's. For black students the results were not as strong, but still exhibited positive trends, particularly in reading where black students did not fall further behind in achievement, as they had in the past. In mathematics, they narrowed the gap slightly, whereas in the past they fell further behind in mathematics as well.

In sum, the results of the programmatic changes have had an important and positive impact on the achievement of minority students. This is especially true in comparison to the achievement of their nonminority peers, where the changes have halted the increasing growth of the gap in achievement. The greatest gains, perhaps, have been with the Hispanic students who achieved much like their white peers by the end of grade three. Yet, there is still work to be done in helping black students further close the achievement gap.

Effects on Students from Lower Income Backgrounds

Typically students from lower income families tend to have lower academic achievement than their peers and similarly have much higher rates of retention, special education referral, and drop out. The achievement data for the Bay Shore students who had not experienced programmatic changes exhibited exactly these trends. Students from lower income homes scored significantly below their peers on end-of-first-grade tests, and fell further behind each year until the end of grade three. The instructional interventions needed to break these trends directly paralleled those described previously for minority students: begin interventions early and maintain them for prolonged periods of time.

The results of the programmatic changes initiated in the Bay Shore Schools have shown success in meeting the academic needs of students from lower income backgrounds. On the Iowa Tests of Basic Skills, lower income students in the group that experienced programmatic innovations started out behind their peers at the end of first grade, but by the end of third grade achieved comparably in relation to their peers. These were very large achievement gains, particularly in comparison to how students from lower income backgrounds achieved previously. After benefiting from the programmatic changes instituted by the District, lower income students not only performed better on achievement tests, they also exhibited gradual increases in their achievement, as opposed to the gradual declines of the past.

The results on the Pupil Evaluation Program tests paralleled those described above. In the Bay Shore comparison groups who had not benefited from programmatic changes, lower income students scored lower than their peers and had a much lower passing rate after the institution of the programmatic changes, lower income students performed on an equivalent basis when compared to their peers.

Referrals to Special Education and Remedial Mathematics and Reading

In general, the referrals to special education in the District during grades one through three were rather low. Yet, after implementation of the programmatic changes, and the corresponding gains in student achievement, the percent of students referred to special education dropped to 4.9%, or only 12 students. This number and this percentile were significantly lower than the national average which hovers around 12%. The improved instructional programs may have resulted in less need for remediation and thereby eliminated the social stigma that went along with being identified as a special education student. Certainly this is one way to mainstream students: have effective instructional programs that effectively meet students' instructional needs without necessitating special education services.

In addition, the referrals for students in need of remedial assistance in mathematics and reading declined sharply with the implementation of new curricula and the full-day kindergarten program. Nearly ten percent fewer students in the entire fourth grade class were identified as needing Chapter I remedial support. Here again, the programmatic changes, the curricular innovations, and the full-day kindergarten effects impacted favorably upon the at risk student population. A substantial number of youngsters had been

mainstreamed into regular mathematics and reading instructional programs by the time they entered the fourth grade year. These results suggested the importance of early intervention, sound curriculum, solid instructional programs, and additional support during the early primary school years.

CONCLUSION

Although constantly striving to improve, the Bay Shore School District reflects upon its initial successes in narrowing the achievement gap between minority student achievement and Caucasian student achievement, and in improving achievement for all. Through a variety of means including comprehensive changes in program and curriculum design, long-range planning, clear and forthright goals and objectives, staff development, and program evaluation, the Bay Shore School District stands on the threshold of developing an educational system designed to enable its students to succeed in the twenty-first century. It is the overarching goal to go beyond that threshold and ensure the success of <u>all</u> Bay Shore students during the next century, regardless of youngsters' race, ethnicity, socioeconomic status, gender, or handicapping condition.